UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

NML CAPITAL, LTD.,	:	03 Civ. 8845 (TPG)
	:	05 Civ. 2434 (TPG)
	:	06 Civ. 6466 (TPG)
Plaintiff,	:	07 Civ. 1910 (TPG)
	:	07 Civ. 2690 (TPG)
v.	:	07 Civ. 6563 (TPG)
		08 Civ. 2541 (TPG)
THE REPUBLIC OF ARGENTINA,	:	08 Civ. 3302 (TPG)
	:	08 Civ. 6978 (TPG)
Defendant.	:	09 Civ. 1707 (TPG)
		09 Civ. 1708 (TPG)
AURELIUS CAPITAL PARTNERS, LP AND	:	
AURELIUS CAPITAL MASTER, LTD.,	:	07 Civ. 2715 (TPG)
	:	07 Civ. 11327 (TPG)
Plaintiffs,	:	
v.	:	
THE REPUBLIC OF ARGENTINA,	:	
Defendant.	:	
AURELIUS CAPITAL MASTER, LTD. AND	:	
ACP MASTER, LTD.,	:	09 Civ. 8757 (TPG)
	:	09 Civ. 10620 (TPG)
Plaintiffs,	:	
v.	:	
THE REPUBLIC OF ARGENTINA,	:	
Defendant.	:	**(captions continued on next page)**

DECLARATION OF JOSEPH SREMACK

AURELIUS OPPORTUNITIES FUND II, LLC AND AURELIUS CAPITAL MASTER, LTD.,	:	10 Civ. 1602 (TPG) 10 Civ. 3507 (TPG) 10 Civ. 3970 (TPG) 10 Civ. 8339 (TPG)
Plaintiffs,	:	
v.	:	
THE REPUBLIC OF ARGENTINA,	:	
Defendant.	:	
BLUE ANGEL CAPITAL I LLC,	:	
Plaintiff,	:	07 Civ. 2693 (TPG) 10 Civ. 4101 (TPG) 10 Civ. 4782 (TPG)
v.	:	
THE REPUBLIC OF ARGENTINA,	:	
Defendant.	:	

I, JOSEPH SREMACK, declare under penalty of perjury that the following is true and correct:

1. I am a citizen of the United States and am over the age of eighteen years old. I am not a party to the above-captioned action. My business address is Berkley Research Group, 1919 M Street NW, Suite 800, Washington, DC 20036. I have personal knowledge of the facts set forth in this Declaration and, if called as a witness, I could and would competently testify to them.

Scope of Engagement and Summary of Conclusions

2. I was retained by Quinn Emanuel Urquhart & Sullivan, LLP, counsel for plaintiff NML Capital, Ltd. ("NML"), as an expert to review and provide comments in response to the motion filed on March 20, 2014, by non-parties Citibank, N.A., Citicorp North America Inc., Citicorp USA Inc., Citigroup Global Markets Inc., and Citigroup Inc. (collectively, the "Citi Entities") to stay production or proceedings pursuant to the order entered by this Court in the above-captioned actions on September 25, 2013 (the "September 25 Order") and the information subpoena dated April 15, 2013, that was served on Citibank N.A. ("Citibank") by NML (the "NML Subpoena"). Specifically, I was asked to (I) explain in general terms the expected effort to comply with the NML Subpoena, which calls for the production of records reflecting the "transfer . . . of any monies or financial instruments to, from, or through accounts owned or controlled by Argentina"; (II) review and assess the facts set forth in the March 18, 2014 Declaration of Rebecca J. Nelson (the "Nelson Declaration"); and (III) provide a summary of general approaches typically employed in responding to subpoenas or requests for information similar to the NML Subpoena.

3. In forming my opinions, I have reviewed the Citi Entities' Motion for a Stay, the Nelson Declaration, and the Declaration of Lindsay T. Knapp and exhibits thereto, and have

relied on my professional experience and the materials and information generally used by electronic discovery ("e-discovery") technologists.

4. Through my review of the information provided, and my understanding of the facts of this case, I have come to the following conclusions, which are more fully explained below in this Declaration:

- With respect to Question I, based on my professional experience, the expected effort to comply with the NML Subpoena is not outside the standard scope of what is typically required to comply with similar subpoenas, and the effort should not require significant manual searches or the input of over four hundred individuals.
- With respect to Question II, in reviewing and assessing the Nelson Declaration, I note that the facts contained in the declaration are largely insufficient to accurately assess the actual process employed by Citibank, from a technical perspective, and the actual effort expended in performing this process.
- Finally, with respect to Question III, there are a number of approaches that are widely used and accepted by technologists for (1) the identification of information technology ("IT") systems and other media with potentially relevant data; (2) the determination of IT systems and other media containing relevant data; (3) and the collection and production of relevant data. Citibank can and should consider these approaches to allow it to efficiently respond to the NML Subpoena.

Qualifications

5. I am a Principal with Berkeley Research Group, LLC's ("BRG") Technology Services practice ("TS"). BRG is a leading global expert services and consulting firm that provides independent expert testimony, litigation and regulatory support, authoritative studies,

strategic advice, and document and data analytics to major law firms, Fortune 500 corporations, government agencies, and regulatory bodies around the world. BRG is headquartered in Emeryville, California, with 26 offices across the United States and in Australia, Canada, Latin America, and the United Kingdom.

6. My job duties regularly involve providing advisory services regarding complex litigation and investigations, serving clients across numerous industries, including financial, healthcare, government, and consumer products. TS is comprised of a team of technology professionals offering proven expertise in advising clients on structured data discovery, e-discovery, software and source code analysis, and IT system assessments. We are nationally and internationally recognized as advisors in all areas of structured data discovery and e-discovery.

7. I have eleven years of experience in the litigation and technology consulting profession. Prior to joining BRG in 2013, I spent ten years at several firms, including two global accounting firms, in a similar capacity. I received a M.S. in Computer Science from North Carolina State University in 2004 and a B.A. in Computer Science and Philosophy from The College of Wooster in 2002. Based on my professional experience and related training, I am a functional expert in the use of technology to understand and solve complex technical and business issues involving large volumes of data.

8. In my professional experience, I have worked on consulting engagements and led teams of consultants in engagements involving the identification, collection, and production of large-scale database systems, including those for the financial industry. Several examples of related prior engagements are:

- The collection and analysis of data from options clearing and trading systems at a major United States bank, including over one billion database transactions, the

electronically-stored images of paper trade order slips, chart of account detail, and electronic- and paper-based customer statements;

- The collection and analysis of millions of records of stock trade and customer detail for several large-scale Ponzi scheme investigations;
- The analysis of Society of Worldwide Interbank Financial Telecommunication ("SWIFT") message records; and
- The analysis of over one billion records for NYSE Specialist daily order-matching and NYSE stock ticker data.

9. My team has assisted counsel and corporate clients by providing comprehensive reports, trial preparation, and witness services in matters involving electronic information. We regularly assist in identifying and collecting electronic information from data storage systems, disparate data locations–including database systems and backup media–and reporting systems. We routinely advise and assist clients in locating key information using industry best practices by working with key stakeholders and IT personnel. Our deep understanding of database systems, custom-developed software, and other data storage systems allows us to assist with the most complex of data discovery and analysis requests.

10. My CV is attached as Exhibit "A" hereto.

Opinions and Conclusions

I. Expected Process for Responding to the NML Subpoena

11. In order to aid the Court in understanding what would typically be involved by a non-party in responding to a request for information such as the NML Subpoena, I have set out below the expected process that a bank would undertake in preparing to respond to such a request. As I will describe below, application of this procedure should allow Citibank to provide

the requested information with minimal disruption of its business and with the active involvement of a limited number of employees.

12. Given the importance to commercial banks of SWIFT messages and other types of wire transfer data (*e.g.*, CHIPS, FEDWire, and DTC) and the typical requirement to retain such messages, I would expect that the relevant data to respond to the NML Subpoena be available in Citibank's database systems and that the location(s) of the data be readily known by key Citibank personnel. Transaction data of the type sought is typically stored and managed in a database system[1] due to the volume and importance of the information. The typical process for identifying the relevant systems would involve interviews of business process and IT system owners who are knowledgeable about in which systems and in what, if any, backup media the relevant data reside. Based on that information, interviews would then be conducted with the appropriate database administrators and IT personnel to determine how to perform automated searches of the database.

13. Based on my experience and industry best practices, several methods exist for accessing and searching database systems for potentially relevant information. The first method–known to be the fastest and most reliable–is to run programmed logic, known as a "query," against the database to identify the records matching the defined criteria. Queries can be run either through the built-in querying functionality of the database software or through third-party software tools that connect to the database. The second method is to extract all data from the system, load the data into a separate system, and search the data in that system. This

[1] Database systems are a type of software that store transactional data (*i.e.*, structured data) in a standardized, unified format and structure. Most enterprise-level database systems are designed to store large volumes of data, which are often measured in the billions or trillions of records. Database systems also offer mechanisms for accessing the data, either through a front-end that displays the contents of the database or a querying mechanism whereby queries–or programmed logic–can be written and executed to select specific records.

method requires more effort than the first, but can be used when the first method is not available or when numerous searches need to be run across a large volume of data. The third method, if available, is to run searches through a front-end interface of a database system, which is a menu-based view that allows users to interact with the database without writing queries. This method is slow and prone to error.

14. It is my professional opinion that the first method, running queries in the existing database system, is preferable because it is typically more accurate, less time-consuming, and repeatable. For database systems without readily available methods for querying the data, the second method provides the best solution because data is collected and the data set containing all relevant information can be exported for the purpose of loading and culling in a system with such querying capabilities. The third method should only be employed when the first two options are not feasible.

15. Two additional potential limitations of this third option are:[2]

- A limited ability to search on all database fields. If a manual search is performed on a limited number of fields, potential "search hits" may be missed; and
- The possibility of mismatches if a set of database data is linked to another. Two data sets may be related (*e.g.*, linked accounts, subsidiaries, or household information), but a manual search or a search via a front-end interface may not take those types of relationships into account, resulting in false negatives.

16. In my experience, the collection of the data is closely tied to the data search method chosen. Searching for data via queries or exported data allows for faster, simpler, and

[2] *See* "The Sedona Conference Database Principles," March 2011 Public Comment Version, The Sedona Conference, p. 28.

less error-prone data productions. The same programmatic capabilities that ensure fast, accurate searches also allow for fast, accurate export into easily-produced data formats.

17. Further, based on my professional experience, provided the most efficient and appropriate search method is chosen, the effort that one would expect a bank to expend to comply with a subpoena similar to the NML Subpoena is not outside the standard scope of what would ordinarily be required to respond to similar information subpoenas that banks regularly receive and respond to, and the effort involved should not require significant manual searches or the input of over four hundred individuals.

II. Evaluation of Nelson Declaration

18. The Nelson Declaration details the efforts undertaken by the Citi Entities in responding to the September 25 Order, which materials were also provided to NML pursuant to a "Me Too" subpoena dated December 18, 2013, and served by NML on Citibank. Based on my reading of the Nelson Declaration, it is my understanding that the efforts undertaken to date have resulted in the production of approximately 35,000 wire transfers for more than 900 of the entities requested. This production data was the result of searches performed. In the Nelson Declaration (¶¶ 4-7) the following searches are described:

- A "manual" search for global information that "involved approximately 450 people, 250 systems, and 100 countries";
- A search of U.S.-domiciled account relationships;
- A global search for transactional relationships, OTC, derivatives, letters of credit, and credit facilities; and
- A request for "employees that would likely be involved in any loans, issuances, or financings by or for the benefit of Argentina" to search for relevant information.

19. The description of the "manual" search for global information that "involved approximately 450 people, 250 systems, and 100 countries" does not give sufficient information to understand precisely what such a search entailed, the effort required to complete it, or the anticipated additional effort in complying with the NML Subpoena. Ms. Nelson's statement that "the search was manual" can be interpreted in various ways. For example, two possible meanings are that the searches were performed through a front-end interface, whereby the person performing the search inputs each search term individually and reviews the results one-by-one. Another possible meaning is that the entire list of records was extracted to a file (*e.g.*, a spreadsheet) and the person performing the search reviewed the results visually. Both interpretations lead to questions about the process actually employed; however, since Ms. Nelson does not appear to have technical expertise and her declaration does not cite a technical expert, it is wholly unclear what she means by a "manual" search.

20. The number of systems, countries, and people actively involved in this process is also not clear to me from the Nelson Declaration. First, with regard to the number of countries, it is not clear whether this refers to the physical location of the purported number of systems, the people performing the searches, or the countries referenced by the data. The number of systems, likewise, is not clear. While the point raised in the Nelson Declaration about the lack of a centralized database is understandable, the declaration fails to clarify whether the number of systems is the total number of systems Ms. Nelson inquired about, whether that is the number of systems searched, or whether that is the number of systems containing relevant data. Moreover, the approximation Ms. Nelson has used is not helpful in assessing the completeness of the search. Similarly, it is not at all clear what is meant by the phrase that the search "involved approximately 450 people," because I cannot ascertain from the information provided by Ms.

Nelson whether that number refers to the number of people who performed the searches, the number of people involved in the overall search process (*e.g.*, managers, IT personnel), or the number of people with whom some communication was shared about the process (*e.g.*, email recipients). Stating non-approximated numbers (if available), providing level-of-effort metrics (*e.g.*, man-hours involved), and clearly defining the role of the country, system, and people vis-à-vis the numbers provided would remove such confusion and allow an accurate assessment to be made of the true burden to and effort already expended by the Citi Entities and the anticipated additional effort that will be required of Citibank in responding to the NML Subpoena.

21. The Nelson Declaration does not clearly state whether all the database systems that potentially contain relevant data are owned and managed by Citibank or other Citi Entities. In my experience, large institutions can rely on third-party data hosting providers to manage various aspects of data management, which can include leasing equipment and IT personnel either within the client's facility or outside the client's facility in a separate location. Understanding where the systems reside and who owns and manages the IT infrastructure that stores that data is important for assessing how the data should be identified, searched, and collected–and what impediments may exist.

22. In my reading of the Nelson Declaration, no mention of issues involving data collection or production is given. As such, it is my understanding that the primary question is whether the identification and searching of the systems for the requested information is correct and complete.

III. Summary of Reasonable Alternative Methods of Responding to the NML Subpoena

23. Based on my experience and understanding of the facts involved in this matter, it does not appear that all possible methods for identifying and collecting all relevant data have

been exhausted or that the most efficient and cost-effective methods have been utilized. The methods employed to identify the systems involved have not been clearly defined, nor is the precise number of systems involved stated. In my experience, detailed records of the relevant systems should be captured and retained by interviewing key business process and IT personnel. In addition, unless all relevant information is retained in the approximately 250 systems, the availability of the data should be investigated to ensure that all records are searched.

24. The Nelson Declaration does not cite any use of programmatic and/or automated logic to perform the searches. Without a clear understanding of the "manual" search mentioned in the Nelson Declaration, the possibility exists that performing numerous manual searches of hundreds of systems across large data sets would be overly time-consuming, prone to human error, and not easily auditable or repeatable. Automated query logic provides a means to expedite the searches, perform accurate searches, and document the searches performed. The need to document the searches performed is important for demonstrating "good faith efforts to accurately export and produce database information."[3] In my experience, depending on the nature of the database system, several methods for performing searches in a semi-automated or fully automated way exist: through a front-end interface, through a database query language interface, and/or by way of extracting the data and performing searches in a separate database system.

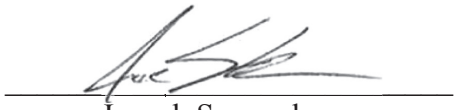
25. In my experience, the approach adopted by the Citi Entities–searching for individual records–is only one method of identifying potentially relevant information and the location(s) of relevant data, and as such, the search described has not been shown to be

[3] *See* "The Sedona Conference Database Principles," March 2011 Public Comment Version, The Sedona Conference, p. 17.

exhaustive. Several additional methods exist to survey the available data and to provide summary-level detail about data collections. For example:

- By-account summary reports;
- Chart of accounts or customer account detail reports; and
- Bank transfer summary reports by location.

Searching this type of summary detail can yield additional information about the accounts, which serves several purposes: (1) it demonstrates whether the accounts exist and the account types; (2) it may contain information about the location of where the corresponding transactional data is retained and information about the account or system manager; and (3) it can used be used to validate that the transactional data sources searched comport with the summary detail.



Joseph Sremack

Executed in Washington D.C.
On the 7th day of April 2014.